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APPLICANT: SOMERVILLE, Robin B.; FAN, Liang-Tseng

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TITLE: PROCESS FOR MODIFYING COAL SO AS TO REDUCE SULFUR EMISSIONS

Second Supplemental Amendment B: CLAIM AMENDMENTS

Claims 1 - 20 (canceled). These claims were canceled by a previous amendment.

Claims 21 - 39 (canceled).

40. (new) A method of utilizing a coal product having reduced sulfur emissions comprising:

grinding a raw coal material into a coal powder having a desired particle size;

agglomerating said coal powder with fresh hydrated lime in an enclosed vessel, said

fresh hydrated lime being generally unexposed to atmospheric carbon dioxide;

adding water to the agglomeration of coal powder and fresh hydrated lime in the
enclosed vessel so as to have a moisture content of between 10 and 30 weight percent of the total
weight of the water-added agglomeration;

drying the water-added agglomeration so as to have a desired moisture content; and

immediately injecting the dried agglomeration into a combustion chamber.

41. (new) The method of Claim 40, said coal powder having a particle size of between 80
and 20 meshes.

42. (new) The method of Claim 41, said coal powder having an average particle size of 40
meshes.

43. (new) The method of Claim 40, said fresh hydrated lime being of a particle form and
without binders added thereto.

44. (new) The method of Claim 43, said particle form of said fresh hydrated lime having an average size of less than 10 percent of said desired particle size of said coal powder.

45. (new) The method of Claim 40, said step of agglomerating comprising:

mixing said fresh hydrated lime with said coal powder in which said fresh hydrated lime is 1 to 15 weight percent of the weight of said coal powder.

46. (new) The method of Claim 40, said step of adding water comprising:

immediately adding water to the agglomeration so as to form an intimate agglomeration of said coal powder and said fresh hydrated lime.

47. (new) The method of Claim 40, said desired moisture content being less than 1 weight percent.

48. (new) The method of Claim 40, said step of drying comprising:

passing the water-added agglomeration from said enclosed vessel to an externally heated oven without exposing the water-added agglomeration to carbon dioxide.

49. (new) The method of Claim 48, said step of drying further comprising:

heating the water-added agglomeration to a temperature of between 300 and 400°F.

50. (new) The method of Claim 49, said step of heating comprising:

heating the water-added blend from waste heat from a said combustion chamber.

51. (new) The method of Claim 48, said step of drying further comprising:

preheating the water-added agglomeration prior to passing the water-added agglomeration into said externally heated oven.

52. (new) The method of Claim 40, the raw coal material having a sulfur content of approximately 3% of a total weight of the raw coal material, said fresh hydrated lime being between 5 to 6 weight percent of the total weight of the raw coal material.

53. (new) A method of manufacturing a coal product having reduced sulfur emissions comprising:

grinding coal into a powder having a particle size of between 80 and 20 meshes;
agglomerating the powder with fresh hydrated lime in which the fresh hydrated lime is between 1 to 15 weight percent of the weight of the powder, said fresh hydrated lime being unexposed to carbon dioxide and being free of binders of materials other than the fresh hydrated lime;

adding water to the agglomeration so that the agglomeration has a moisture content of between 10 and 30 weight percent of the total weight of the agglomeration, said powder and said fresh hydrated lime and said water being in an enclosed container; and

heating the water-added agglomeration to a temperature of between 300 and 400°F in said enclosed container so as to dry the agglomeration to a moisture content of less than 1 weight percent, said steps of grinding and agglomerating and adding water and heating being in a continuous process.

54. (new) The method of Claim 53, said coal having a sulfur content of no less than 3 weight percent of the total weight of the coal.

55. (new) The method of Claim 53, said fresh hydrated lime being between 5 to 6 weight percent of the total weight of the powder.

56. (new) The method of Claim 53, said step of heating comprising:

immediately passing the agglomeration to an externally heated oven.

57. (new) The method of Claim 56, said step of heating further comprising:

preheating the agglomeration prior to passing the agglomeration to said externally heated oven.

58. (new) The method of Claim 53, said step of adding water comprising:

intimately agglomerating the coal and the fresh hydrated lime.